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(19) **United States**(12) **Patent Application Publication** (10) **Pub. No.: US 2021/0056597 A1**
Rached (43) **Pub. Date: Feb. 25, 2021**(54) **METHOD OF DIMINISHED VALUE
CALCULATION IN REPAIRED VEHICLES**(57) **ABSTRACT**(71) Applicant: **Tony Rached**, Roswell, GA (US)(72) Inventor: **Tony Rached**, Roswell, GA (US)(21) Appl. No.: **16/873,660**(22) Filed: **Aug. 27, 2019****Publication Classification**(51) **Int. Cl.****G06Q 30/02** (2006.01)**G06Q 10/00** (2006.01)**G06Q 10/10** (2006.01)**G06Q 40/00** (2006.01)(52) **U.S. Cl.**CPC **G06Q 30/0278** (2013.01); **G06Q 10/20**
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The invention consists of a method for calculating diminished value in automobiles and other roadway vehicles. Diminished value is the inherent loss in resale value a vehicle suffers as a result of a collision, flood or other physical damage such that would require body work and repairs. This value is found by finding a range of potential values of analogous vehicles in order to establish the range of the loss, then applying a coefficient to that value to determine where in the range the damaged and repaired vehicle properly falls. The coefficient correlating to the damages is found by taking the average of sub-coefficients tied to the relative cost of repair, the amount of labor needed to fix the damage, and the degree of structural damage incurred. While it is commonplace on the market for the sale price of a refurbished automobile to be decreased as a result of repairs, to what degree the value should be decreased is unclear and existing methods are often imprecise, unsatisfactory and conclusory in nature.

Damage Coefficient (DC) Calculation and Application

$$DC = (DTVC + LC + SDC) / 3$$
$$\text{Diminished Value} = (\text{Loss Range}) \times (DC/100)$$

Example Calculation

Component	Observable Data	Coefficient
DTVC	\$5,700 in repair on a \$9,500 vehicle	80
LC	74 Labor Hours	74
SDC	2.5 Hours of Structural Work	70.8

$$\text{Damage Coefficient: } (80 + 74 + 70.8) / 3 = 74.9$$

Pre-Loss Value: \$9,500

Loss Range: \$2,900

Diminished Value = \$2,175
(Post-Repair Value = \$7,325)